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PATENT APPLICATION

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

JASON PETER ANDREW
CHARLESWORTH ET AL.

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Examiner: U. T. Le
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Application No.: 09/863,424

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Group Art Unit: 2171
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Filed: May 24, 2001

For: INDEXING METHOD AND
APPARATUS

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:
October 2, 2003
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RECEIVED

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Technology Center 2100

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

In compliance with the duty of disclosure under 37 C.F.R. § 1.56 and in accordance with the practice under 37 C.F.R. §§ 1.97 and 1.98, the Examiner's attention is directed to the documents listed on the enclosed Form PTO-1449. Copies of the listed documents are also enclosed.

This Application has received an Office Action on the merits but has not yet received either a final action or a Notice of Allowance. Accordingly, this Information Disclosure Statement is filed under 37 C.F.R. § 1.97(c) and is accompanied by the \$180.00 fee specified at 37 C.F.R. § 1.17(p). Consideration of the art cited herein is accordingly deemed proper, and such action is respectfully requested.

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It is respectfully requested that the above information be considered by the Examiner and that a copy of the enclosed Form PTO-1449 be returned indicating that such information has been considered.

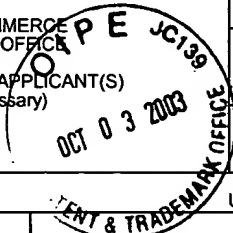
Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address given below.

Respectfully submitted,

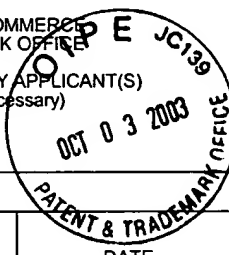

Attorney for Applicants

Registration No. 29,296

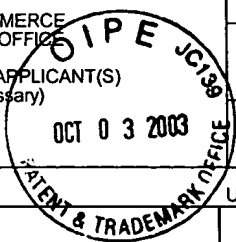
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FORM PTO 1449 (modified) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE * LIST OF REFERENCES CITED BY APPLICANT(S) (Use several sheets if necessary)				ATTY DOCKET NO. 01263.001605		APPLICATION NO. 09/863,424	
				APPLICANT JASON PETER ANDREW CHARLESWORTH ET AL.			
				FILING DATE May 24, 2001		GROUP 2171	
U.S. PATENT DOCUMENTS							
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		4,227,176	10/07/80	Moshier	340	146.3R	
		4,736,429	04/05/88	Niyada et al.	381	43	
		4,903,305	02/20/90	Gillick et al.	381	41	
		4,975,959	12/04/90	Benbassat	381	41	
		4,980,918	12/25/90	Bahl et al.	381	43	
		4,985,924	01/15/91	Matsuura	381	43	
		5,075,896	12/24/91	Wilcox et al.	382	39	
		5,131,043	07/14/92	Fujii et al.	381	41	
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ OR ABSTRACT
	EP	0 597 798 A1	05/18/94	EPA	G06F	15/403	
	EP	0 649,144 B1	04/19/95	EPA	G11B	27/28	
	EP	0 689 153 A2	12/27/95	EPA	G06K	9/46	
	GB	2 302 199 A	01/08/97	Great Britain	G06F	17/21	
	WO	00/54168	09/14/00	PCT	G06F	17/00	
OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)							
		D.A. James, et al., "A Fast Lattice-Based Approach to Vocabulary Independent Wordspotting", 1994 IEEE Int. Conf. On Acoustics, Speech and Sig. Proc., 1994 ICASSP-94, April 19-22, 1994, vol. 1, pp. I/377-I/380.					
		Steven Bird, et al., "A Formal Framework for Linguistic Annotation, Technical Report, MS-CIS-99-01, Dept. of Computer & Information Science, March, 1999, Linguistic Data Consortium, University of PA, pp. 1-48					
		L.R. Bahl et al., "A Method for the Construction of Acoustic Markov Models for Words", Oct. 1993, IEEE, Transactions on Speech and Audio Processing, Vol. 1, Issue 4, pp. 443-452					
		Kai-Fu Lee, "Automatic Speech Recognition, The Development of the SPHINX System" Kluwer Academic Publishers, pp. 28-29 (1989)					
EXAMINER				DATE CONSIDERED			

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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		5,136,655	08/04/92	Bronson	381	41	
		5,333,275	07/26/94	Wheatley et al.	395	2.52	
		5,390,278	02/14/95	Gupta et al.	395	2.52	
		5,500,920	03/19/96	Kupiec	395	2.79	
		5,594,641	01/14/97	Kaplan et al.	395	601	
		5,649,060	07/15/97	Ellozy et al.	395	2.87	
		5,684,925	11/04/97	Morin et al.	395	2.63	
		5,708,759	01/13/98	Kemeny	395	2.63	
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OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)							
		P. Schmid et al., "Automatically Generated Word Pronunciations From Phoneme Classifier Output", Statistical Signal and Array Processing, Proc. of the Int'l. Conf. on Acoustics, Speech and Signal Processing (ICASSP), IEEE, Vol. 4, April 27, 1993, pp. 223-226					
		J. Skilling, "Classic Maximum Entropy", in J. Skilling (ed.), Maximum Entropy And Bayesian Methods, pp. 45-52 (1989) by Kluwer Academic Publishers.					
		E. Wold, et al., "Content-Based Classification Search, and Retrieval of Audio", IEEE Multimedia, Vol. 3, No. 3, 1996, pp.27-36					
		N. Jain et al., "Creating Speaker-Specific Phonetic Templates With A Speaker-Independent Phonetic Recognizer, Implications For Voice Dialing", 1996 IEEE Int'l. Conf. On Acoustics, Speech & Signal Processing Conf. Proceedings, vol. 2, pp 881-884.					
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		5,721,939	02/24/98	Kaplan	395	759	
		5,729,741	03/17/98	Liaguno et al.	395	615	
		5,737,723	04/07/98	Riley et al.	704	243	
		5,752,227	05/12/98	Lyberg	704	235	
		5,781,884	07/14/98	Pereira et al.	704	260	
		5,870,740	02/09/99	Rose et al.	707	5	
		5,873,061	02/16/99	Hüb-Umbach et al.	704	254	
		5,907,821	05/25/99	Kaji et al.	704	4	
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OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)							
		Steve Cassidy et al., "EMU: An Enhanced Hierarchical Speech Data Management System", Proc. of the 6th Australian Speech Science & Technology Conf., Adelaide, 1996, pp. 381-386					
		C. Berge, "Graphs & Hypergraphs", 1976, North Holland Mathematical Library, Amsterdam, pg. 175, XP-002192893					
		P. Gelin et al., "Keyword Spotting For Video Soundtrack Indexing", 1996, IEEE Int. Conf. On Acoustics, Speech & Sig. Proc., 1996, ICASSP-96 Conf. Proceedings, Vol. 1, pp. 299-302, May 7-10, 1996					
		C. Gagnoulet et al., "MAIRIEVOX: A Voice-Activated Information System", Speech Communication, 10 (1991), pp. 23-31					
		S. Srinivasan et al., "Phonetic Confusion Matrix Based Spoken Document Retrieval", Proc. of the 23rd Annual Int'l. ACM SIGIR Conf on Research & Development in Information Retrieval, July 24-28, 2000, pp. 81-87					
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		5,983,177	11/09/99	Wu et al.	704	244	
		6,061,679	05/09/00	Bournas et al.	707	3	
		6,243,680 B1	06/05/01	Gupta et al.	704	260	
		6,321,226 B1	11/20/01	Garber et al.	707	10	
		6,389,395 B1	05/14/02	Ringland	704	254	
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		J. Zobel et al. "Phonetic String Matching, Lessons From Information Retrieval", Sigir Forum, Assn. for Computing Machinery, New York, US, 1996, pp. 166-172, XP000870222					
		Hsin-Min Wang, "Retrieval of Mandarin Spoken Documents Based On Syllable Lattice Matching", Pattern Recognition Letters, 21, pp. 615-624, June, 2000					
		IBM, "Template Averaging For Adapting A Dynamic Time Warping Speech", IBM Technical Disclosure Bulletin, IBM Corp., NY, US, Vol. 32, No. 11, April 1, 1990, pp. 422-426, XP000097761, ISBN, 0018-8689					
		D. Sankoff et al., "Time Warps, String Edits, and Macromolecules: The Theory And Practice of Sequence Comparison", CSLI Publications (1999) ISBN: 1-57586-217-4, pp. 1-44, 211-214, 311-321 and 359- 362.					
		Steven Bird, et al., "Towards A Formal Framework For Linguistic Annotations", Linguistic Data Consortium, Univ. of PA, December, 1998					
		J. Markowitz, "Using Speech Recognition", Prentice Hall, NJ, 1996, pp. 220-221					
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